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SOME LONGER TORNADO PATHS IN ARKANSAS ABOUT A CENTURY AGO

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When Arkansas lands were surveyed a century or more ago, engineers preparing the Federal Land Survey plats for the General Land Office indicated the principal timber falls showing paths of severe local storms through wooded areas of the State. The plats covered the period from 1815 through 1859. Mr. W. E. Headrick, cartographer for the Arkansas Highway Department, examined these plats and plotted the longer length paths of storms. These paths for 1829–1854 are shown in figure 1.

Arkansas is mostly wooded. Paths of these storms were usually indicated on the General Land Office plats as "hurricane paths," showing principal timber falls. These were usually one-fourth mile or less in width, but sometimes up to a mile wide. Although these were called "hurricane paths" over most sections of the State, and "cyclone paths" in the Ozark area of northern Arkansas, it is believed they were actually paths of tornadoes because of their narrow width and general direction from southwest to northeast. The dates of occurrence of these swaths of fallen timber were obtained by the surveyors, when possible, through inquiry of the residents in the area, but the years indicated likely were not always exactly the years of occurrence. For example, the path through Pulaski County, shown as 1829 on the Land Survey plat, likely occurred when a tornado struck Little Rock on May 30, 1830 [1].

Many of the paths cover nearly the same area. In Union County, for example, Mr. Headrick noted that much of two paths in 1844 and 1845 were in exactly the same area. Only a few timber falls are recorded in eastern Arkansas from Arkansas County northeastward, principally because this area is prairie country, or is covered only by bottomland hardwoods.

One feature of particular interest in the paths of several tornadoes in northwest Arkansas is their movement from northwest to southeast with a definite backing tendency, forming a hook as they turned to the northeast. It is also interesting to see that the storms did not always move in a perfectly straight line, although the general orientation of the tracks is from southwest to northeast. These minor variations in direction can possibly sometimes be accounted for by topography; at other times, the change in direction apparently cannot be explained by topographic features.

Figure 1 is of historical interest in showing that tornadoes a hundred years or more ago in Arkansas were much the same as those of recent years [2, 3].* It also is of interest in illustrating a new source of storm data, one that may yield important results if further explored. In this connection it should be pointed out that Mr. Headrick also has plotted many of the tornado paths of recent years. These data, the results of direct surveys by the Arkansas Highway Department, are especially worthwhile because they furnish rather exact information on length of path, direction, and location.

REFERENCES

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2. U. S. Weather Bureau, "Tornado Occurrences in the United States," *Technical Paper* No. 20, Sept. 1952, 43 pp.
3. Harvey S. Cole, "Tornadoes in Arkansas, 1879–1926," *Monthly Weather Review*, vol. 55, No. 4, Apr. 1927, pp. 176–182.

*Sources of data on tornadoes in Arkansas in recent years are to be found in issues of the *Monthly Weather Review*, and *Climatological Data, National Summary*.

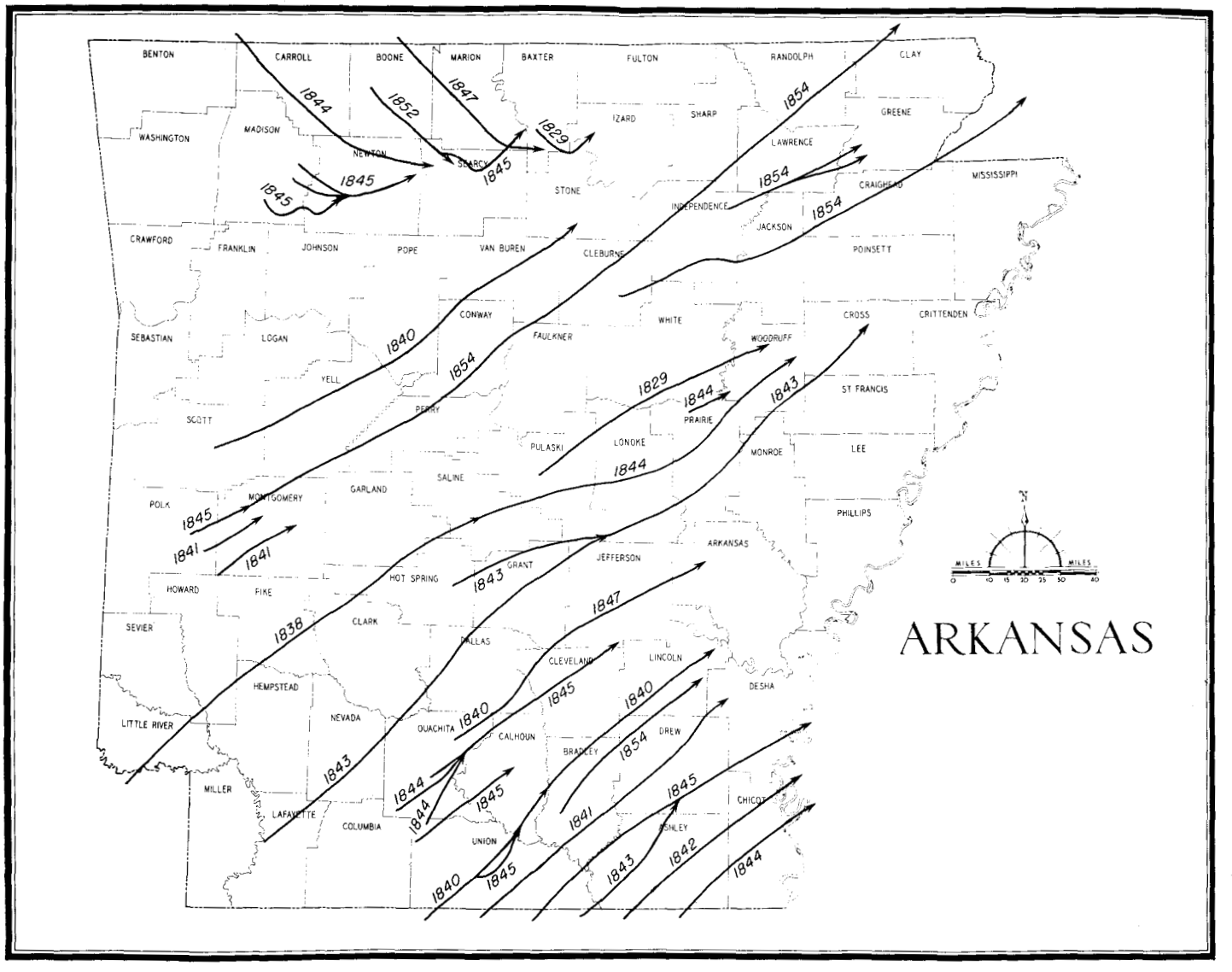

FIGURE 1.—Some longer tornado paths in Arkansas, 1829–54, as shown on Federal Land Survey plats.